DOCUMENT RESUME

ED 215 835 RC 013 339

AUTHOR Chand, Krishan
TITLE Education, Income and Natives.
PUB DATE Sep 79
NOTE 30p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Alaska Natives; American Indian Education; Blacks; Comparative Analysis; Differences; *Educational Benefits; Elementary Secondary Education; Employer Attitudes; Females; Higher Education; *Income; *Labor Utilization; Males; Occupations; *Whites
IDENTIFIERS *Alaska

ABSTRACT

Using data from the December, 1977, Anchorage Urban Observatory program, the study hypothesizes a relationship between education and income using Scattergrams in-between the two variables for different Alaskan working class characteristics to be studied (i.e., employers, employees, occupation, race and sex) and finding the coefficient of correlation in education and income. The stated importance of the investigation of education, income and Alaska Natives is to encourage the school systems and to motivate young individuals for more schooling. Findings include: professional work carries the highest status and brings in the most money; occupations vary greatly in the amount of formal schooling required; white persons make more money because they are white regardless of job, although a significant finding for Alaska Natives is the strong relationship between education and earnings which would urge more education for Natives in order to compete with whites, thus receiving the maximum benefit out of their education. The fourth finding reveals the value of education has a more indirect impact on women who do not work, than those who do work. Charts and graphs of findings are included in the appendices. (ERB)

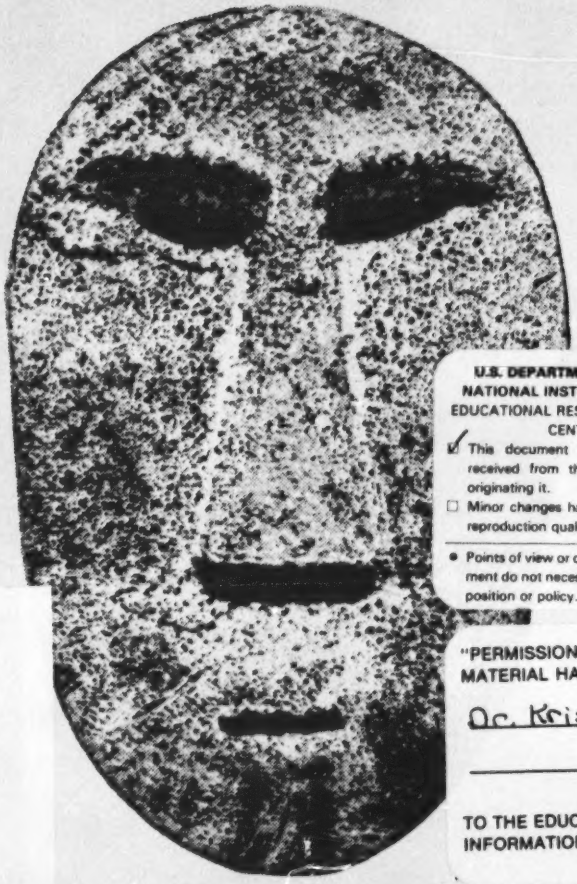
****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

EDUCATION INCOME and NATIVES

ED215835

RC 01 3339

RC



U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Dr. Krishan Chand

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

KRISHAN CHAND B.S., M.S., M.ED

"EDUCATION, INCOME AND NATIVES"

I very much appreciate the thoughtful gesture and know I will find this booklet very useful.

Jay S. Hammond, Governor
State of Alaska

Your research should be helpful to teachers in understanding the problems of cross cultural education.

Hugh Holloway, Ph.D.,President
Sheldon Jackson College, Ak.

Very interesting and thought provoking.

Jay Barton, President
University of Ak., Fairbanks

I shall read them with care and great profit.

Glenn A. Olds, President
Alaska Pacific University

The statistics and other information which you have compiled should prove of value to all of us who are concerned with education in Alaska.

Dick H. Bower, Superintendent
Aleutian Region School Dist,Ak.

It sure should serve as a motivator for Native peoples to pursue higher educational goals.

Charles R. White,Superintendent
Lake & Peninsula School Dist,Ak.

I have read it completely and was very much impressed by it.

Ben. C. Kirker, Superintendent
King Cove City Schools, Ak.

EDUCATION, INCOME AND NATIVES

— Krishan Chand
B.S., M.S., M.Ed.

Copyright © September 1979 Krishan Chand

All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or by any informational storage and retrieval system without written permission from the copyright owner. Printed in the United States of America.

EDUCATION, INCOME AND NATIVES

This is a brief report of the research the author has done at the University of Alaska, Anchorage, in 1979.

Over 300 pages of computer print, several scattergrams were obtained using SPSS program. Datas of about 1200 Heads of Household, their education, income, and other particulars were analyzed for the purpose of this study.

It is submitted herewith for the advantage of the people involved in education. Those interested in more details, please feel free to contact the author. Suggestions and comments are also welcome.

KRISHAN CHAND
B.S., M.S., M.Ed.
Principal
Point Hope Schools
Point Hope
Alaska 99766

Dr. Krishan Chand
M.S., M.Ed., Ed.D.
2 Washington Square Village
Suite 11D
New York, NY 10012

Are you concerned with school adequacy?

dropouts?

natives and other minorities?

poverty?

financial gains of education?

THIS BOOK MAY HELP YOU!

CONTENTS

1. Education, Income and Natives 1
   - Education 1
   - Income 1
   - Natives 1
   - Related Research 1

2. $ $ $ Value of Education 3
   - Schooling pays — even for a bricklayer 5
   - Lifetime earnings 6
   - Gains are much less for non-whites 6
   - A decade later 9

3. Hypothesis 10

4. Instrumentation 11

5. Procedures 12

6. Importance and justification 13

7. Important findings
   - Variation by employers 14
   - Variation by occupation 14
   - Variation by race 15
   - Natives 15
   - Variation by sex 16

Appendix I 'R' for different categories 17

II Bar Graph: Employers and 'R' between education and income. 21

III Bar Graph: Race and 'R' between education and income. 22

CHAPTER I

EDUCATION, INCOME AND NATIVES

Schools must provide an education adequate to the needs of all youth — adequate in terms of both the immediate learning environment and the long-range uses of schooling. Since occupational success is a measure of the potential of the individual to attain the material aspects of the good life, individual income has long been used as a measure of the adequacy of education.

The words education, income and natives as used in this book have the most common meanings:

EDUCATION

Schooling in terms of years of school completed.

INCOME

Earnings (receipts and profits) in terms of dollars which a person is making from labor, business, property or the investments.

NATIVES

The word native is used here for natives of Alaska.

RELATED RESEARCH

Numerous studies conducted under varying economic conditions have shown that persons with more schooling tend to earn more money. This relationship seems reasonable if it is assumed that the attainment of more schooling improves the productivity of individual and thereby compensates for the investment of time, effort and money. On the other hand it is by no means inevitable that money invested in education will pay dividends. There is always the possibility and probability that the higher incomes of those with more years of schooling are due to difference in intel-

ligence, home environment, family connections and other factors which result from individual differences in ability and opportunity.

A long series of studies comparing individual income with level of education was conducted by Hermon Miller based upon derived figures representing conditions in 1958. Under 1958 conditions, the average graduate of elementary school could expect a lifetime income of about $182,000 or $3769 per year, whereas under the same conditions, an average secondary school graduate could expect about $258,000 or $5567 per year. The difference associated with a high school education amounts to 42 percent.

Miller reports, "Although the income levels have changed considerably during the past twenty years, the basic relationship between the extent of schooling and income appears to have remained relatively the same." It is particularly significant to note this finding with reference to his other collected datas. Even though large masses of the population have been brought into the secondary schools and colleges, the relative effectiveness of individuals to attain levels of income commensurate with levels of education is unchanged. The effect of mass education appears to be to elevate the total economic potential of the nation.

CHAPTER 2

$$$ VALUE OF EDUCATION

Three hundred years ago French essayist La Fontaine wrote "Let ignorance talk as it will, learning has its value." He was so right. Every study of the relation between earnings and education shows that the more highly educated the man, the greater his earnings. There are many exceptions to be sure. Differences in talent, home environment, family connections, drive, imagination, and just plain old luck cause some people to do well and others poorly. And immaterial factors — the color of a man's skin, for example — make education more worthwhile to some than to others.

Perhaps it is regrettable to stress the value of education in such crass terms. Education tends to produce a richer and more varied life, and it is fundamental to the operation of a democratic society. For these reasons alone, it is worth its cost in time, money and effort even if the economic advantages should cease to exist. The main reason for focussing on the economic advantages is a simple one. At present, they are the only ones that can be measured even approximately.

But there is at least one more reason for stressing the pay-off from education — to convince our poor, whose children are badly in need of schooling, that it may be a way out of their present dilemma. There are still many in our society who have had little experience with education and they do not see how it can help them. It is a simple point, but a fundamental one that is often overlooked. Many social workers have observed that the poor today lack the education that characterized the immigrant poor who lived in the same way twenty or thirty years ago. If this is the case, it would perpetuate the vicious circle which transmits poverty from one generation to the next. This point is well made in Christopher Rand's study *The Puerto Ricans*: "The Jewish immigrants felt that success would come through education...and the Italians were somewhat the same. In the garment trade twenty years ago, a high percentage of the workers had kids going through college, but this is no longer the case.... You don't have a ferment these days to get out of the slums by educational achievement, but by financial achievement, and the Puerto Ricans reflect this. The Puerto Rican kids here dream of quick money, not of intellectual attainments." Rand's observation undoubtedly applies to Negroes as well.

There is some justification for the feeling by Puerto Ricans,

Negroes, and other minority groups that education does not do as much for them, financially, as it does for others. James Baldwin writes in *No Body Knows My Name*: "It is not to be wondered at that a boy, one day, decides that if...studying is going to prepare him only to be a porter or an elevator boy — well, then, the hell with it."

Various studies and statistics show that non-whites (largely Negroes) who have completed four years of college can expect to earn only as much in a lifetime as whites who have not gone beyond the eighth grade. No wonder non-whites show little enthusiasm for schooling. Indeed, it is surprising that so many have continued with their education until the average non-white man in his twenties is now only about one and a half years behind the white in years of schooling.

Emphasis on the negative aspects of the situation, important though it may be as a stimulus to improvement, should not obscure an equally important fact — that schooling does pay off for non-whites, even though the amount is far less than for whites. And even if it did not pay off today, it is still important if non-whites are ever to advance out of their economic status.

An investment in education is much like buying insurance. No insurance company can tell you how long you are going to live; but they do know your chances of living a given number of years if they know your age, sex, and several other things about you. The same thing holds for education. No one can tell you how much you will earn in a lifetime on the basis of your education. We can estimate your chances.

Education has a direct impact on the income of women who work. Its value is much more indirect for the large proportion who do not work. To most girls, education provides a greater opportunity to marry a man who will be financially successful; it also provides more in the way of intangibles that may be more important than money — the kind of man she may marry, her influence on his life, the environment for her children, etc. In contrast, practically all adult men are full-time workers; advantages which accrue from more schooling are reflected in their incomes.

In every year for which data are shown, the completion of an additional level of schooling was associated with higher average incomes. In 1959, elementary school graduates made $3,800, high school graduates made $5,600, and the college graduates made $9,200. In that one year the difference between the incomes of the average high school and the average college graduate was considerably greater than the cost of a year of college. This finding parallels that obtained in numerous other studies dating back to the early part of this century.

Although the income levels have changed considerably during the past twenty years, the basic relationship between the extent of schooling and income appears to have remained much the same. These facts belie the dire expectations of some analysis — "a college degree is not worth anything any more." They also show how wrong were those men who opposed the vast expansion of college training programs after World War II. Professor Seymour Harris of Harvard wrote in 1949 that the persistent increase in the supply of college-trained workers would so flood the market that "college students within the next twenty years are doomed to disappointment after graduation, as the number of coveted openings will be substantially less than the number seeking them." The same concern was expressed by James B. Conant, then president of Harvard, and Chancellor William J. Wallin of the New York State Board of Regents.

SCHOOLING PAYS — EVEN FOR A BRICKLAYER

Everyone knows that it pays to go to college. But does schooling pay off if you are only going to be a carpenter, a plumber, or a bus driver? Definitely. The studies in the past show that in many occupations the high school diploma is worth about $1,000 a year — roughly $40,000 over a working lifetime. Why the difference? There are many reasons. High school graduates have higher I.Q's. This is partly due to their greater education. It may also reflect greater native intelligence and aptitude to learn. But there are other reasons too. Employers give preference to high school graduates. With a diploma you can drive a bus for a transcontinental bus company; without it, you are lucky to get a job with the Podunk Transit Company. The carpenter who is a high school graduate has a regular job with a big construction firm. He works regularly, good weather and bad. The uneducated carpenter works by the day. He gets a job, finishes it, and goes down to the union hall to get another. Whenever work is slack, he is the first to go.

Unions also prefer high school graduates. Increasingly, the diploma is becoming a prerequisite to qualify for apprentice training. According to one study, "virtually all registered apprenticeship programs require a minimum of two years of high school education or its equivalent. Skills are becoming more complex, and so is related classroom training, an essential ingredient in all registered apprenticeship programs. Many apprenticeship programs, therefore are raising their educational standards and accepting nothing less than a high school diploma or its equivalent." An official of the General Electric Company reports that at one time

the Schenectady plant "used to screen applicants by means of a simple test based on the three R's. Now the company accepts only applicants who have high school diplomas for apprenticeship and who have earned superior grades in Mathematics and Science."

LIFETIME EARNINGS

Estimates of lifetime earnings provide better measures of financial returns associated with education than the annual earnings. The difference in average income between high school and college graduates in one year was more than enough to pay for the cost of a year in college. So you can well imagine that the difference in income over a lifetime will be enormous. The figures on lifetime earnings are prepared according to standard techniques of life insurance practice.

On the basis of conditions in 1959, an elementary school graduate could expect to earn during his lifetime about $41,000 more, on the average, than the person who quit before completing the eighth grade. This large difference cannot be entirely due to the completion of several additional years of elementary school. You just don't learn that much in a grade school. The chances are that failure to complete elementary school is, by and large, symptomatic of other traits that lead to low productivity and low income.

The difference between the expected lifetime earnings of the average elementary school and high school graduate is equally striking. In 1959, the average elementary school graduate could expect lifetime earnings of about $184,000 as compared with about $247,000 for the average high school graduate — a difference of $63,000.

A college degree is required for many, if not most, high-paying jobs. And the greatest gains associated with additional schooling appears at the college level. In 1959 a college graduate could expect to earn $417,000 during his lifetime as compared with $247,000 for the average high school graduate. During his lifetime, the average college graduate earns about $38,000 extra for each year of college. Even if these earnings are matched against the high cost of college training — a cost generally borne by the parents rather than the children — the rate of return is obviously substantial.

GAINS ARE MUCH LESS FOR NON-WHITES

The association between earnings and education is not the same for all groups. It would be most surprising if it were, in view of the

obstacles that restrict entry of Negroes and other minorities into many of the better paying jobs.

Education pays off for each white and non-white, but the returns are far greater for whites. In most occupations, non-whites earned about three-fourths as much as whites with the same amount of schooling. In nearly every occupation non-white high school graduates earned less than whites who never went beyond the eighth grade. The reasons for these differences undoubtedly vary according to the occupation. In the highly unionized crafts, many non-whites may have to work for lower pay on non-union jobs because they are not permitted to join the unions. Even when they are union members, they may not be able to get the better jobs with large companies, where they are assured of regular employment. In those occupations that are not highly unionized, non-white workers, regardless of education, may be the first dismissed during slack periods. As a result, their annual earnings are lower than those of whites even though they are paid at the same hourly rate.

Even when non-white men are educated and are employed in a trade or profession, their earnings are far below those of whites with the same number of years of schooling and doing the same kind of work. This is one cause of the low economic status of non-whites. A more important cause is their concentration in low paid occupations such as laborers and service workers.

A non-white man who has not gone beyond the eighth grade has very little chance of being anything more than a laborer, a porter, or a factory hand. Nearly eight out of every ten non-white men with only eight grades of schooling worked as laborers, service workers, or operatives at the time of the last census. Among whites with the same amount of education, only five out of ten worked at these low paid jobs.

The non-white college graduates seem to be able to find professional employment in relatively large numbers. About three out of every four were professional or managerial workers — nearly the same proportion as white college graduates. But there is a big difference. Non-whites were concentrated in the lower-paid professions. One third of the male non-white college graduates in professional employment were school teachers as compared with only one-sixth of the whites. Moreover, earnings of non-whites in the low-paid professions were considerably below those of whites. Relatively few non-whites are in the higher paid professions. About 20 percent of the white male college graduates in professional employment were engineers as compared with only 8 percent of the non-whites; 14 percent of the whites were lawyers or accountants, but only 6 percent of the non-whites. There were proportionately as many non-white doctors as whites, but the average earnings of the

non-whites were only half that received by the whites.

Since whites tend to live longer than non-whites, on the average, their lifetime incomes will also tend to be greater, regardless of schooling; they simply enjoy more years of working life. The difference in life expectancy, however, accounts for only a small part of the difference in earnings and does not substantially change the conclusions. For example, on the basis of actual experience in 1959, non-white men could expect lifetime earnings of about $122,000 or about 51 percent of the white total. If non-whites had the same life expectancy as whites, their expected lifetime earnings would be about $130,000 or 55 percent of the white total.

White high school graduates can expect $62,000 more than elementary school graduates over a lifetime; for non-whites, the difference is less than half as much ($28,000). Similarly, the difference in lifetime earnings between high school graduates and those with four years of college is $142,000; for non-whites the difference is $34,000.

These findings support the belief that much of the gap between the earnings of whites and non-whites is due to factors other than differences in training or ability. But the figures are far from conclusive in this respect. One need not be apologist for discrimination to point out that the meaning of a year of school completed can be quite different for whites and non-whites. In the first place, non-white children receive schooling of poorer quality. As a result, non-whites who have completed the same number of years of school as whites will not be as well educated, on the average.

Studies are made about the expected lifetime earnings of white and non-white men with less than eight years of elementary school for three occupations — carpenters, truck drivers, and semi-skilled factory workers. Since all of these men have very little schooling, it cannot be said that the whites are better educated than the non-whites. Indeed, the low level of education for the entire group makes it likely that the great majority of these men, white and non-white alike, are below average in their ability to absorb formal education.

Despite the similarity of the occupations and schooling, sharp differences persist between the earnings of whites and non-whites. In each of the three occupations, the earnings of non-whites in the south averaged only about two-thirds that of the whites. In the north and west the differences were somewhat narrower; but even here non-white carpenters and truck drivers averaged only about three-fourths of the white total. Among semi-skilled factory workers, non-whites averaged about 85 percent of the white total. The analysis would indeed be imperfect if it were restricted to this one education group and only three occupations. The census data

containing similar information for about thirty different occupations were studied. An analysis of these data produced findings very similar to those described above.

A DECADE LATER

Similar datas of 1976 were analyzed concerning education and income. They also show the same relationship that education produces more income.

CHAPTER 3

HYPOTHESIS

"EDUCATION, INCOME AND NATIVES"

Direction to Study: In the hypothesis stated above, the relationship between education and income will be found. Some of the related factors and characteristics like those of employers, employees, occupations, race, sex, etc., will also be studied.

The final conclusions shall be found after plotting graphs (Scattergrams) in-between the two variables education and income. Scattergrams will be plotted for all the different characteristics to be studied. The relationship may also be determined by finding the coefficient of correlation in education and income.

CHAPTER 4

INSTRUMENTATION

In the present investigation, education and income are to be measured. Since the two are already existing in the computer at the University of Alaska, Anchorage campus, I have used the same data for the purpose. All other needed characteristics are also existing in the datas, viz. employers, occupations, race, sex and employment status, etc.

These data are a part of the final research report of Anchorage Urban Observatory program, December 1977.

CHAPTER 5

PROCEDURES

Basically the final research report of Anchorage Urban Observatory program, December 1977, is used for the purpose of this study. The final report has the data computed at the University of Alaska using the SPSS program (Anchorage Campus). This data has the needed information for this study, i.e. annual income of the head of household and also the education of the head of household. It also has other related data on employers, occupations, race, sex, etc.

Scattergrams in education and annual income will be plotted under all different characteristics to be studied. Value of coefficient of correlation (R) will be found which will give the required relationship in-between the two variables.

Both the scattergrams and the coefficient of correlations (R) will be taken into consideration towards the final conclusion of the investigation.

20

CHAPTER 6

IMPORTANCE AND JUSTIFICATION

The investigation "Education, Income and Natives" is of importance as it will encourage the school systems and also the individuals for more schooling. It will help them to motivate young ones. It will help the schools to prove their "material" adequacy as stated in the beginning of this book.

Although we cannot place a monetary value on education in its broadest sense, the fact remains that there are measurable financial returns associated with it.

Thus the investigation is of sociological, economic and educational value, importance and justification.

Education no doubt has other importance, other than the material gains, which goes toward the training of the people for a good citizenship. But in a country based on a "Capitalistic" structure of economy, why should not everything be studied on a "materialistic gains"? This investigation is based on studying this materialistic gain of the education. Are there not a number of drop-outs just for this particular reason that they think education does not have any financial gains? They think education does not give them $ $ $ profit as much as they invest on it in terms of time and money.

IMPORTANT FINDINGS

i. VARIATION BY EMPLOYERS:

The variation of salaries paid by the employers is full of surprises. Averages can be misleading, of course. The public schools in Anchorage are paying a salary around $20,000 to $35,000 a year depending on education and experience of teachers, whereas the private schools are paying their teachers a salary of $7,000-plus a year, yet both are classified as "education."

In the case of construction employers, Coefficient of Correlation (R) is −0.01521. This shows education is not responsive to monetary gains in the areas of construction employers. There are various reasons for this. One main reason why it came out like this is that, in many construction jobs, the employers require some high school training plus several years of apprenticeship which are not reflected in the census reports on years of school completed. In view of this consideration, the relationship between education and earnings is quite different in this area. The other reason for not responding to monetary gains of education in the area of construction is that, in many a case, the payment is typically on an hourly basis; not to work is not to earn. It could also be because, in some of the cases, work on construction projects lasts until the project is completed, after which a new job must be found.

Employers such as those providing professional services, including medicine and law, are responding highly to monetary gains of education. (R) in this case is 0.66830. This is very clear because such employers distribute most of their salaries to professional elite. Professional work carries the highest status in America and brings in the most money.

ii. VARIATION BY OCCUPATION:

Occupations vary greatly in the amount of formal schooling required. Most professional work can be done only by those who have completed 4 years of college and, for many jobs, several years of highly specialized postgraduate work are also required. Although clerical workers need far less

education, completion of high school is today generally a minimum requirement for most white-collar jobs. Laborers and operatives, on the other hand, need little schooling or specialized training of any type. Many of the crafts require some high school training plus several years of apprenticeship which are not reflected in the census reports on years of school completed. In view of these considerations, the relationship between education and earnings is quite different in the various occupations.

Relatively few occupations in the professional field had appreciable numbers of persons who were not college graduates. In these occupations, however, the earnings of college graduates exceeded those of elementary and high school graduates by a wide margin. It is undoubtedly true that for professionals, most of the top jobs require college training. Education is most responsive to income in case of professionals. (R) in this case being 0.34261.

iii. **VARIATION BY RACE:**

White persons make more money simply because they are white, regardless of the job. One hundred years of delay have passed since President Lincoln freed the slaves, yet their heirs, their grandsons, are not fully free. They are not yet freed from the bonds of injustice. They are not yet free from social and economic oppression. Much about it I have already written before under "GAINS ARE MUCH LESS FOR NON-WHITES."

NATIVES:

Worth mentioning here is about "Alaska Natives." Look at the bar graph in Appendix III. (R) for Alaska Natives is 0.59712. This strong relationship between their education and earnings shows one thing for sure: that in order to compete with whites and come out of their "poverty shells," the Natives must have more and more education. It also means that they will get the maximum benefit out of their education — the time and money they would put into it.

Coefficient of Correlation® in their education and income is 0.59712 as compared to 0.18492 for whites 0.12477 for blacks; and 0.05122 for others. This means the more education they have, the more their income gains. Income is directly proportional to their education:

Education & Income

As several types of funding are available, they spend less of their own money as compared to whites on their education. This makes the education more financially advantageous to them, as compared to anyone else.

Besides various fundings available to them for their education, there are also some of the preferences they are entitled to with several employers in Alaska.

This way they have all the gains of education and should take the advantage of it.

iv. **VARIATION BY SEX:**

Although education has a direct impact on the income of those women who work, its value is much more indirect for the large proportion who do not work. To most girls education provides a greater opportunity to marry a man who will be financially successful; it also provides more in the way of intangibles that may be more important than money — the kind of man she may marry, her influence on his life, the environment for her children, etc. In contrast, practically all adult men are full-time workers; advantages which accrue from more schooling are reflected in their incomes.

APPENDIX I

COEFFICIENT OF CORRELATION® FOR DIFFERENT CATEGORIES

S. No.	Category	Total Number of Heads of Household	Coefficient of Correlation ®
	Employers		
1.	Agriculture & Commercial Fishing	20	– 0.37025 (Spurious)
2.	Mining (Including Oil & Gas Production)	53	0.04292
3.	Construction	183	– 0.01521
4.	Manufacturing (Including Oil & Gas)	14	– 0.44731 (Spurious)
5.	Transportation, Communication	122	0.24763
6.	Wholesale Trade	37	0.09660
7.	Retail Trade	75	0.22917
8.	Finance, Banking, Insurance & Real Estate	62	0.31232
9.	Professional services, including medicine and law	112	0.66830
10.	Other services (including hotel, beauty parlor, personal & business services)	88	0.11669

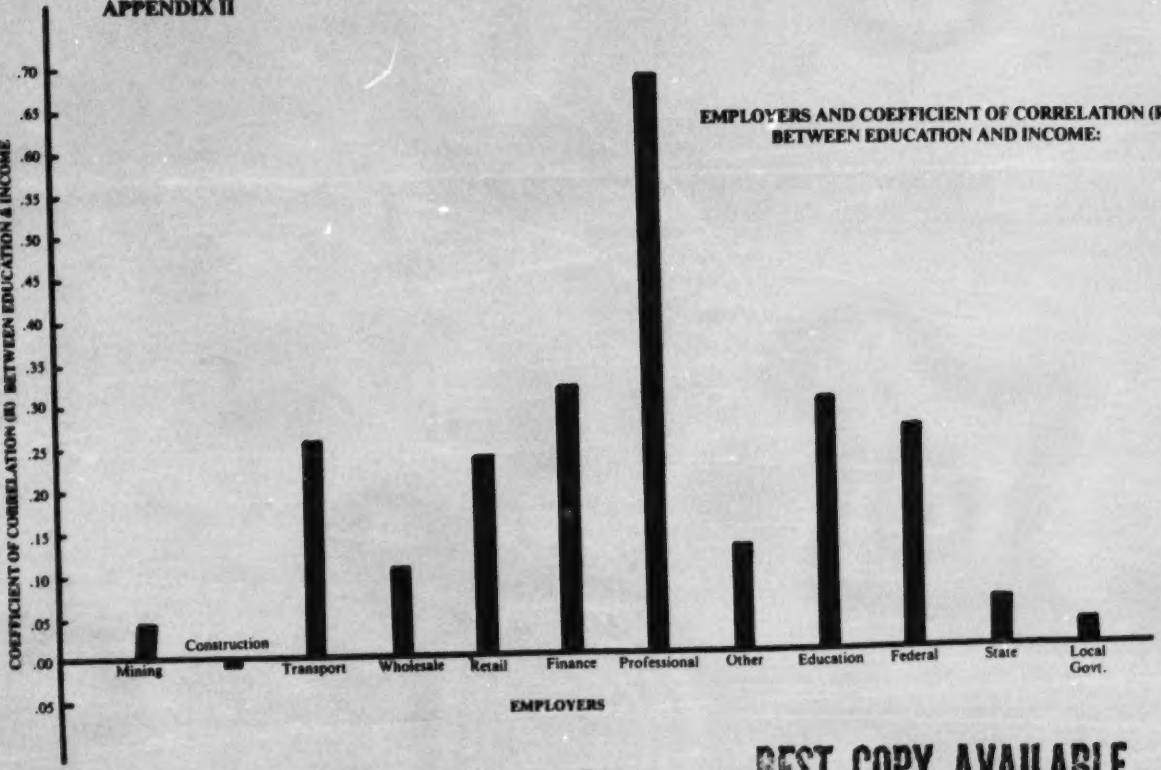
11.	Education (All Levels)	38	0.29419
12.	Federal Government	201	0.25743
13.	State Government (Excluding Education)	39	0.05708
14.	Local Government (Excluding Education & Utilities)	24	0.02568
15.	Self-employed	0	No cases remain
	Occupations		
16.	Professional, Technical Workers (Airpilots, Engineers, Lawyers, Teachers, Accountants, Social Workers, Clergy)	305	0.34261
17.	Manager, Officials, Proprietors (Buyers, State & Local Officials, Floor Managers, Owners of Businesses)	201	0.20432
18.	Clerical — Office Workers, Sales Workers (Bookkeepers, Mail Carriers, Insurance Investigators, Telephone Operators)	97	0.03550
19.	Craftsmen, Foremen (Bakers, Carpenters, Plumbers, Cranemen, Roofers, Upholsterers)	152	−0.23654
20.	Operative Workers (Machine Operators, Truck Drivers, Meat Cutters, Food Packers, Boatmen, Taxi Drivers, Opticians, Bus Drivers, Printers)	107	−0.07015

21.	Service Workers (Private Household, Hospital, Hotel, Restaurant Workers, Policemen, Firemen, Dental Technicians, Hairdressers, Paper Boys)	64	0.10971
22.	Laborers (Fishermen, Teamsters, Service Station Laborers, Warehousemen, Long Shoremen)	07	0.19488
23.	Farmers & Farm Managers	02	No cases remain
24.	Armed Forces	73	0.10411
	Race		
25.	White	1078	0.18492
26.	Black	36	0.12477
27.	Alaska Native	48	0.59712
28.	Other	34	0.05122
	Sex		
29.	Male	1079	0.20901
30.	Female	130	0.23406
31.	Income and number of months worked	535	0.02853
32.	Education and number of months worked	564	0.00810

	Employed Status		
33.	Employed	1042	0.18622
34.	Unemployed	98	0.16087
35.	Retired	57	0.25184
36.	Income and Education	519	0.21473

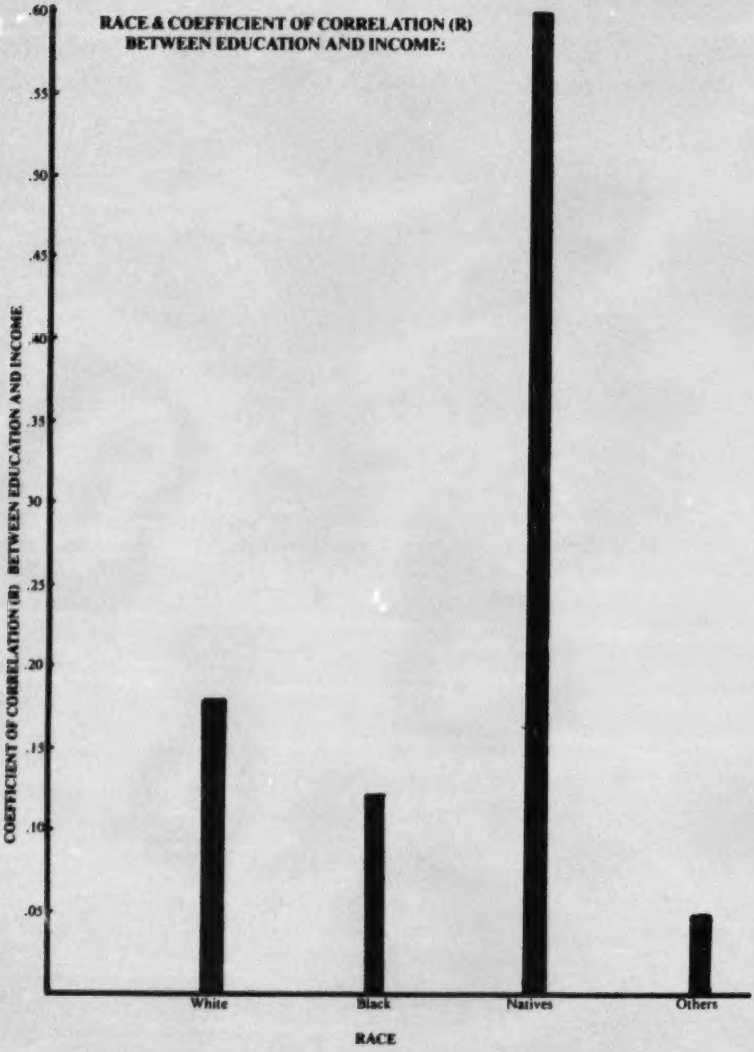
20

APPENDIX II



BEST COPY AVAILABLE

APPENDIX III



BEST COPY AVAILABLE